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**Public Libraries and the Internet 2006:  
A Special Report on Public Libraries and the 2006 Hurricanes**  
**Preliminary DRAFT Report**

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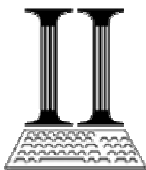
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For:  
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## INTRODUCTION

This special report provides details on public library Internet connectivity in the gulf states, particularly Louisiana and Mississippi. The goals of the report are to:

- Provide an analysis of study data regarding Louisiana and Mississippi;
- Offer details regarding Internet connectivity in Louisiana and Mississippi as compared to national findings;
- Conduct related analysis of additional states in related areas such as disaster relief and support; and
- Offer selected conclusions regarding public library Internet connectivity in the Gulf region.

The report begins with 2006 survey data analysis, offers insights from the qualitative/open-ended survey question regarding connectivity impact on the community, and concludes with selected observations.

## SURVEY DATA ANALYSIS

This section details selected 2006 survey findings in Louisiana and Mississippi, and compares those to national data from the 2006 survey. Due to the number of cases, the states were combined for analysis purposes. This provides a more robust picture of the two states most damaged by Hurricane Katrina. It is important to note that responses from Louisiana and Mississippi reflect library closures and destruction due to the hurricane. It is not possible to offer a precise impact of the storm on the numeric data presented below.

As Figure 1 indicates, a slightly smaller percentage of public libraries in Louisiana and Mississippi are connected to the Internet, but all provide public access.

**Figure 1. Public Library Internet Connectivity.**

	Connected to the Internet	Connected Staff Only	Connected Public Access
<i>States</i>			
Louisiana & Mississippi (n = 214)	95.3%	-	95.3%
<i>National</i> (N=16,458)	98.9%	0.5%	98.4%

Libraries in Louisiana and Mississippi are open roughly 6 hours less per week on average than the national average (see Figure 2). However, though small in number, some Louisiana and Mississippi libraries indicate a substantial average increase in hours open.

**Figure 2. Public Library Hours Open.**

	Open Hours Stayed the Same	Open Hours Increased	Open Hours Decreased
<i>States</i>			
Louisiana & Mississippi (n = 214)	89.7%	2.3%	5.6%
Average Hours	38.0/week (n=192)	18.0 (n=5)	3.3 (n=6)
<i>National</i> (N=16,458)	85.0%	9.6%	4.8%
Average Hours	44.8/week	6.0/week	6.8/week

### Public Access Infrastructure

On average, Louisiana and Mississippi libraries have 6.4 workstations per library, roughly four fewer than the average public library (see Figure 3). Also, Louisiana and Mississippi public library workstations tend to be from one to three years old. Libraries in Louisiana and Mississippi are significantly less likely (7.4% as compared to 16.6%) to be adding workstations over the next two years (see Figure 4), and more likely to have no plans to add any workstations over the next two years (59.8% as compared to 45.5%). In terms of replacing existing workstations, Louisiana and Mississippi libraries are less likely to be able to maintain a replacement schedule (44.8% as compared to 54.1%) than libraries nationally (see Figure 5).

**Figure 3. Public Library Average Number of Public Access Workstations.**

	Average Number of Workstations	Workstations less than 1 year old	Workstations 1-2 years old	Workstations 2-3 years old	Workstations greater than 3 years old
<i>States</i>					
Louisiana & Mississippi (n = 214)	6.4	2.6	5.4	5.2	3.22
<i>National</i> (N=15,934)	10.7	5.3	6.1	6.4	5.6

**Figure 4. Public Library Public Access Workstation Additions.**

	The library plans to add workstations in the next two years	The library is considering adding workstations in the next two years	The library has no plans to add workstations in the next two years	The library has plans to reduce the number of workstations within the next two years
<i>States</i>				
Louisiana & Mississippi (n = 214)	7.4%	29.4%	59.8%	-
<i>National</i> (N=15,934)	16.6%	28.6%	45.5%	0.2%

**Figure 5. Public Library Upgrade Schedule for Public Access Workstations.**

	Yes, the library is able to maintain its replacement schedule	No, the library is not able to maintain its replacement schedule	The library has no replacement schedule	Not applicable
<i>States</i>				
Louisiana & Mississippi (n = 214)	44.8%	14.4%	34.8%	6.0%
<i>National</i> (N=15,934)	54.1%	10.9%	29.5%	5.6%

As Figure 6 indicates, Louisiana and Mississippi libraries are far less likely to offer wireless Internet access services than are public libraries nationally, with only 8.4% currently offering wireless access as compared to 37.4% nationally. Moreover, Louisiana and Mississippi libraries are substantially more likely (65.3% as compared to 39.0%) to plan to offer wireless access within the next year.

**Figure 6. Public Library Provision of Wireless Internet Access.**

	Currently available	Not currently available and no plans to make it available within the next year	Not currently available, but there are plans to make it available within the next year
<i>States</i>			
Louisiana & Mississippi (n = 214)	8.4%	65.3%	26.2%
<i>National</i> (N=15,886)	37.4%	39.0%	23.6%

## Speed of Connectivity

Overall, Louisiana and Mississippi public libraries offer slower connection speeds in their libraries than do public libraries nationally (see Figure 7). Indeed, the most frequently cited connection speed in Louisiana and Mississippi public libraries is 56kbps-128kbps (29.1%), and this compares to 769-1.5mbps (34.4%) nationally (see Figure 8). Not surprisingly, Louisiana and Mississippi libraries are more likely to indicate that their connection speeds are insufficient all the time or some of the time to meet patron needs than libraries nationally.

**Figure 7. Public Library Speed of Public Access Connection.**

	LT 56kbps	56kbps-128kbps	129kbps-256kbps	257kbps-768kbps	769kbps-1.5mbps	GT 1.5mbps	DK
<i>States</i>							
Louisiana & Mississippi (n = 214)	4.6%	29.1%	13.3%	8.2%	26.0%	17.9%	1.0%
<i>National</i> (N=15,934)	2.1%	9.8%	8.2%	11.7%	34.4%	28.9%	4.9%

**Figure 8. Public Library Adequacy of Public Access Workstation Bandwidth**

	The connection speed is insufficient to meet patron needs	The connection speed is sufficient to meet patron needs at some times	The connection speed is sufficient to meet patron needs at all times	Don't Know
<i>States</i>				
Louisiana & Mississippi (n = 214)	22.8%	32.7%	44.6%	-
<i>National</i> (N=15,934)	16.1%	29.4%	53.5%	1.0%

## Concluding Comments

The data demonstrate, by and large, that Louisiana and Mississippi libraries lag behind public libraries nationally by most measures – connectivity, numbers of workstations, bandwidth, and wireless access. The data also indicate that Louisiana and Mississippi libraries are less likely to have the ability to replace their workstations with regularity.

## QUALITATIVE DATA FROM THE HURRICANES

Question 9 of the branch portion of the 2006 Public Libraries and the Internet survey was open-ended. It was designed to produce qualitative data from libraries that would both: 1) provide further insight into the perspectives of librarians regarding the impacts of the Internet, and 2) serve as a bridge between the quantitative data from the survey and the data gathered in the site visits. This open-ended question was: “In the space below, **please identify the single most important impact on the community** as a result of the library branch’s public access to the Internet.” All responding branches had the opportunity to answer the question, and respondents were able to write as long a response as they desired to the question. A total of 3,887 libraries answered the qualitative question. Answers ranged from a length of fewer than five words to more than 100 words.

In Louisiana and Mississippi, the general tone and content of the answers was similar to the answers nationally, with the notable exception of responses related to the hurricanes.<sup>1</sup> Overall, several issues dominated the qualitative data, both at the national level and in Louisiana and Mississippi. The majority of public libraries viewed the Internet access in public libraries as: 1) providing access to persons who would not otherwise be able to access the Internet; 2) facilitating educational activities of patrons, particularly K-12 students; and/or 3) benefiting the entire community by enhancing the capacity and usefulness of the library as a place in the community.

However, a strand of answers was also unique to the Gulf Coast states, especially Mississippi and Louisiana. For libraries in states along the Gulf Coast, the past two hurricane seasons have turned public libraries, and the vital Internet access they provide, into outlets for hurricane response and recovery in many locations. A number of libraries in Louisiana and Mississippi, as well as Texas, Alabama, Georgia, and Florida, asserted that the impacts of Internet access in their libraries were most pronounced in the aftermath of one or more of the recent major hurricanes as community members have sought assistance and tried to rebuild their lives.

These libraries indicated four major roles for the public library Internet access in communities after the hurricanes came:

1. Finding and communicating with family members and friends who had been displaced, evacuated to other cities, or were missing.
2. Completing FEMA forms and insurance claims online. The FEMA forms can only be completed online and require certain levels of software to download.
3. Searching for news about conditions in the area from which they had evacuated.
4. Trying to find information about the status of their homes or places of work, including checking news sites and satellite maps.

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<sup>1</sup> As with the quantitative data, the numbers of responses from public libraries in Louisiana was limited by the damage suffered in many parts of the state.

These roles demonstrate the tremendous importance of freely available Internet access in public libraries in event of natural disaster or other type of crisis.

### **“The computers were a Godsend”: Katrina and Public Libraries**

In the areas struck by the epic devastation of Hurricane Katrina, however, the comments were much more stark and plaintive, reflecting the harrowing ordeal of the storm. One Louisiana library wrote:

“During the immediate aftermath of Katrina, our computers were invaluable in locating missing family, applying for FEMA relief (which could only be done online) and other emergency needs. For that time--the computers were a Godsend. Thank you.”

Comments from Mississippi libraries include:

“Much of the community damaged or destroyed by Hurricane Katrina. Public has been using our public access computers to contact insurance companies, Federal Emergency Planning [sic] Agency (FEMA). Also for some is the only means of staying in contact with family members outside of disaster area.”

“Since many people lost connectivity as a result of a direct hit by Hurricane Katrina, our public access computers have been only source of communicating with insurance carriers, Federal Emergency Management Agency (FEMA) and other sources of aid. Have also used them to stay in touch with family & friends due to lack of telephone service.”

The volume of people relying on these computers for hurricane recovery was high in some of these libraries. As one Mississippi library noted simply, “Since Hurricane Katrina, our computer needs have increased significantly.” A different Mississippi library found the need for computers exceeded the capacity after the storm, “Public access to information was the most important service the library provided in the aftermath of Hurricane Katrina. The use and need for computer access proved our need for more computer terminals and connectivity.”

The story from another Mississippi library illustrates this point:

“During the period of time directly after the hurricane struck [until] the end of November our staff helped customers file over 45,000 FEMA applications, insurance claims, and searches for missing relatives and pets. We have a large number of displaced people who are coming to rely upon the library in ways many of them never expected. I've had so many people tell me that they had never been to a library before they had to find someplace to file a FEMA application or insurance claim. Many of these people knew nothing about computers and would have been totally lost with out the staff's help.”

### **“We were the only source of Internet access to FEMA”: Rita, Katrina, and Public Libraries**

The experiences of libraries in Texas and Louisiana after Hurricane Rita parallel the aftermath of Hurricane Katrina. As one Texas library noted, “After Hurricane Rita, the computers were used to contact insurance companies as well as FEMA.” Many Texas communities absorbed evacuees from both storms and saw the parallels in experience:

“Used by Katrina and Rita evacuees to access resources and communicate with family and friends. Children are very comfortable using our computers and they are teaching their parents.”

“The greatest impact has been access to information such as FEMA forms and job applications that are ONLY available via Internet. This was highly visible during the aftermath of hurricane Rita & Katrina. Overall access to information in this rural community has been outstanding due to use of the Internet.”

“We are the only place in town that provides free access to the Internet for the community. In the aftermath of Hurricanes Katrina and Rita, we were the only source of Internet access to the FEMA and other websites needed by those who needed it.”

“The impact has been felt by 1) individuals displaced by the gulf coast hurricanes who have come inland, 2) people who have lost jobs, 3) people who have insufficient access at home.”

### **“Flooded with patrons needing Internet Access”: Public Libraries and Hurricane Evacuees**

Libraries in communities that filled with evacuees found Internet access to be of utmost importance to the new residents of the community. For a Mississippi library, “The relocation of people from Hurricane Katrina has had an impact internet access for a wide variety of uses.” Several libraries in northern Alabama and Arkansas also wrote about the volume of usage in terms of the number of evacuees in their communities. As one rural Alabama library described:

“We had about 100 Katrina refugees using our computers to check on family members and friends who had been evacuated to other places. They also used our computers to file FEMA applications and check on their homes. And, of course, they used email to correspond with friends and family.”

For a library in Arkansas that received many evacuees:

“The Internet was the only means for displaced persons after Katrina to get information they needed. We were flooded with patrons needing Internet Access. More and more people come to the public library everyday for email, on-lines services, job searching, etc. Many have asked for wireless connections for their own personal laptops.”



Other libraries noted that hurricane relief workers who came to their communities had no access to the Internet beyond what was available at the public library. In one Mississippi town, “This community has been tremendously impacted by Hurricane Katrina and provides services to many displaced people and relief workers.”

### **“In times of crisis (hurricane aftermath)”: The Florida Experience**

The tone of the comments differed between the level of the effect of the storms. In Florida—which suffered 8 hurricanes and 2 tropical storms in a period of 13 months—the comments were very matter of fact, indicating that Florida libraries are firmly established as outlets for hurricane recovery and response. One library wrote, “During hurricane season, we have found that hurricane victims used libraries to get in touch with family and friends.” Another Florida library wrote, “In times of crisis (hurricane aftermath) we were there to provide connectivity to the outside world; reaching out to such entities as FEMA, Insurance companies and loved ones, etc.”

### **Conclusions**

The importance of the library through the hurricane aftermath has increased the overall standing of the public library in many communities. One Mississippi library noted, “The library is becoming better known in our small community as a center for information of all types, especially since Hurricane Katrina.” Another asserted, “It has brought in a new group of library patrons who had never used the library before. This has been especially true since Hurricane Katrina destroyed the MS coast.”

The findings in this study are supported by anecdotal data from a number of sources that have collected and documented the roles of public libraries after the hurricanes. Stories relayed in professional literature and other outlets parallel the qualitative data in this study, with public Internet access in libraries playing an essential part in communication and recovery for individuals and communities.<sup>2</sup>

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<sup>2</sup> M. Block & A. Kim. (2006). All (librarian) hands on deck. *Library Journal*, 131(5), 22-25.

J. Choate. (Fall 2005). From the President. *Louisiana Libraries*, p. 19.

G. Eberhart. (2005). Katrina’s terrible toll: Librarians rally to provide information for a devastated Gulf Coast population. *American Libraries*, 36(9), 14-25.

F. Fialkoff. (2005). Government that works: A defining moment for public libraries. *Library Journal*, 130(16), 8.

LJ News. (2005). Libraries damages, librarians respond, after hurricane’s fury. *Library Journal*, 130(15), 16-17.

M. J. McCoy. (2005). The forces of nature or dancing with the three ladies. *Texas Library Journal*, 81(4), 142.

G. Meraz. (2005). In times of trouble. *Texas Library Journal*, 81(3), 90.

H. O’Connell. (2004). Weathering the storms: Hurricanes impact Florida libraries. *Florida Libraries*, 47(1), 4-5.

The value of online communities and organizations in facilitating relief in times of natural disasters has been recognized.<sup>3</sup> While some research has raised questions about the ability of public libraries in various locations to provide vital assistance in a crisis,<sup>4</sup> it is clear that the public libraries along the Gulf Coast have provided invaluable information and support to communities and individuals affected by the recent seasons of major hurricanes. Public libraries and the Internet access they provide clearly can be a vital part of dealing with natural disasters, as evidenced by their roles in helping individuals and communities deal with hurricanes and the aftermath.

## **OVERALL CONCLUSIONS**

If one looks only at the numeric data, one would conclude that Louisiana and Mississippi public libraries have difficulty in maintaining, upgrading, and moving their public Internet access services forward. And this may well be true, given the continually demanding needs of the networked environment on library services and resources. In reviewing the qualitative data, however, it is clear that the public libraries not damaged by the storms in Louisiana and Mississippi, and those in areas which experienced disasters of an influx of individuals affected by the storms, provided critical services to a wide range of users – those impacted by the storms seeking assistance and information, as well as those emergency personnel who needed to connect to the Internet in order to serve those affected by the storms. Thus, public access computing services and Internet connectivity in public libraries can serve as an essential communications link between people, information, and service providers.

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<sup>3</sup> C. Jones and S. Mitnick. (2006). Open source disaster recovery: Case studies of networked collaboration. *First Monday*, 11(5). Available: [http://www.firstmonday.org/issues/issue11\\_5/jones/index.html](http://www.firstmonday.org/issues/issue11_5/jones/index.html)

<sup>4</sup> R. Harris, C. N. Wathen, & D. Chan. (2005). Public library responses to a consumer health inquiry in a public health crisis. *Reference & User Services Quarterly*, 45(2), 146-154.  
G. Matthews. (2005). Disaster management: Sharing experience, working across the sector. *Journal of Librarianship and Information Science*, 37(2), 63-74.